Epidemiology of Pediatric Surgical Conditions at a Tertiary Hospital in Northern Tanzania

Pamela Espinoza – MSGH Candidate

Faculty Lead: Dr. Emily Smith

BACKGROUND

• 1.7 billion children around the world lack access to safe and affordable surgical care when needed and 1.1 billion of them live in low- and middle-income countries\textsuperscript{1,2}

• By evaluating the distribution of surgical disease and outcomes, we can understand the characteristics of children who reached surgical care and identify vulnerable groups among the pediatric population

OBJECTIVES

• Assess the epidemiological distribution and outcomes of children who had surgery at the Kilimanjaro Christian Medical Centre (KCMC)

• Identify the demographic and clinical factors associated with being an out-of-pocket (OOP) patient receiving surgery at KCMC

METHODOLOGY

• Reviewed 2042 medical records of all children who received surgery at KCMC in 2022

• Descriptive statistics, geospatial mapping and regression analysis

INITIAL RESULTS


**Map of Tanzania with geographic areas within 2 and 4 hours of KCMC (driving time)**

**Geographic distribution of pediatric surgical patients based on district of origin**

**Geographic and referral information:**

• Children and their families traveled from 88 out of 170 districts to access surgical care

• 75 referral facilities: 20 Primary Health Services, 36 District Hospitals, 11 Regional Referral Hospitals, 6 Zonal Referral Hospitals, and 2 National Hospitals

**Characteristics of OOP patients:**

• The median travel distance for OOP patients is ~3 times higher than the distance for insured patients (63 vs 23 km)

• Out of the 34 in-hospital mortality cases, 31 were OOP

• The median hospital stay for OOP patients is twice as high as the stay of insured patients (6 days vs 3 days)

CONCLUSIONS

• Surgical services at KCMC reach children nationwide yet access within 2 hours is limited

• Age-specific trends exist for each surgical condition category highlighting the need to delve deeper into current burden of disease patterns

• Current findings on OOP patients serve as indicators of a broader and more complex issue on health disparities